

Patent Proposal

Title: Add Contacts through Statistical search of the Billing DB (Bulk population)

Proposed by Zeev Likwornik, Date submitted: 5 August 29, 2002 (prepared on August 5)

1. Overview

Populating the Network Address Book becomes a critical element in the success of NAB related applications (VAD, "Enhanced" Who called etc etc).

There is no one "killer solution" to populate the NAB – The overall solution is a mix and match of many particular solutions.

The solution I propose here is a major breakthrough in the methods of efficiently and proactively populating the Network Based Personal address book (NPAB).

In a nut shell I suggest to take advantage on the fact that the phone numbers one calls are stored in the billing DB (CDRs) and therefore the most common used one can be extracted from this DB using simple statistical searches. After extracting a list should be built and send to the subscriber to match the proper nicknames for each number.

I believe that comparing to the two main schools of populating – the Incidental population (through a VM or so) and the "bulk" population the current solution has many advantages that overcome specific difficulties in each one of the schools.

2. Detailed Description

While trying to solve the NAB population problem and before diving into technologies one should remember that the solution should be as user friendly as possible.

When asking what are the numbers that a user will want to add to his AB the intuitive answer should be: the number that the user uses the most.

[For the due diligence I believe that other potential answers can be:

1. *The more important number's (i.e "the number of my CEO even if I call him less than once a year") – I believe this is a wrong answer since in this cases the cost to look for the number in any "conventional" AB is relatively very low (besides maybe "911" which we all remember)*
2. *The numbers that calls me the most – This is a true argument for "passive" applications such as "who called" etc. On the other hand these applications can easily use white pages with the "public" names – while fetching the names via the CLI – this is mostly not useful for "active" applications such as VAD since none can accurately say "ADV. Zeev Likwornik and Lilach Kaplan-Likwornik 5 Haalon's st'...."]*

It seems like that today there is already a DB which can be used to extract the most common dialed numbers – this is the Billing DB or the CDRs.

I suggest that the operator while it wants to assist its subscribers to efficiently populate their Network Based personal address books can offer the service of extracting the most used numbers, build a list from them and ask them to match a proper nickname to each number. The list can be sent to the end-user as a form in e-mail, as a link in e-mail, as a

WAP Push or even using a text to speech mechanisms which will "read" the numbers to the end-user and ask for the nickname (in voice format).

A somewhat more advance solution can first match a "full name" to each number in the list (using the system address book (a.k.a as "144" or '411") in a reverse mode (CLI to Name) – in some cases this match can be enough in some others one will need to match a nickname to any "full name" (Zevik to "Zeev & Lilach Likownrik") – in any case it is easier than to match a nickname to the number.

Another list of the numbers that called the subscriber the most can be build in a very similar way (incoming numbers).

The exact parameters for statistics can be configurable by the operator for all users or for specific users and if needed can also be self provisioned by the subscriber (i.e. most x used number in the past y days/months)

The operator and the subscriber can use the same method also for incremental updates of the NPAB every month or so

3. Utilization/Advantages

Out of all population and synchronization "problems" the operator and the subscriber has while trying to populate the Network Based personal Address book the most serious one is the immediate population while registering to NPAB based Service (i.e. VAD) – I am not aware to any better way to perform proactive bulk population of the NPAB while initializing a NPAB based service. It is also important to mention that unlike synchronization methods this solution does not assume the existence of a client/server based digitized AB (i.e. Handset based AB, PDA, Outlook etc...) It can be utilize even for wireline users who have very dumb terminals.

4. Applicability to Comverse

This type of solution was already reviewed by all relevant marketing managers (including Benny Einhorn) and was viewed by all as a break through in population methods. It is about to be written in the NPAB executive summary which will be widely distribute therefore the urgency to move this proposal forward as fast as possible.

Populating NAB through Statistical search of the Billing DB.doc - Message (HTML)

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Follow up

Completed on Saturday, June 14, 2003 11:29 PM.
This message was sent with High Importance.

From: Likwornik Zeev [IMCEAEX- O=BOSTECH_OU=ISMAIL_CN=RECIPIENTS_CN=ZLIKWOR@comverse.com] Sent: Wed 8/28/2002 9:46 AM

To: Kvatinsky Hananel

Cc:

Subject: Populating NAB through Statistical search of the Billing DB.doc

Attachments: Populating NAB through Statistical search of the Billing DB.doc (33 KB)

Hananel,

It seems that additional one or two proposals where not sent to you on time though were written by me awhile ago in any case this is the most urgent one (see reasons in the last paragraph).

Please let me know what is the quickest path we can go with it.

Thanks,

Zeev

US Appl. No. 10/608,534
Atty. Ref. Q73193

-----Original Message-----

From: Kvatinsky Hananel [SMTP:Hananel_Kvatinsky@icommverse.com]
Sent: Sunday, November 24, 2002 2:18 AM
To: William H. Mendir (E-mail)
Subject: Patentability opinion - 3 Address book related inventions

<<Likwomik AB related ideas.zip>>

Shalom Bill

Here are 3 IDRs relating to Address book.
Please conduct a patent search and provide your opinion regarding the patentability of those disclosures.

Hananel

Our refs are 980, 981, 985



Likwomik AB related
ideas.zip...

*New App.
Commverse Ltd.*

US Appl. No. 10/608,534
Atty. Ref. Q73193



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www.sughrue.com

January 13, 2003

Mr. Hananel Kvatsinsky
Intellectual Property Manager
COMVERSE, LTD.
29, Habarzel Street
Tel Aviv 69710
ISRAEL

Re: Inventor: LIKWORNIK, Zeev
Assignee: COMVERSE NETWORK SYSTEMS, LTD.
Patentability Report
Your Refs.: 980, 981, 985
Our Ref.: Q73193

Dear Hananel:

Thank you for your e-mail of November 24, 2002 requesting that we prepare an opinion as to the patentability of the above-identified invention disclosures.

Enclosed is a summary of our findings. Regarding invention disclosures 980 and 985, nothing we uncovered appears to be a bar to patentability of these inventions. Regarding invention disclosure 981, we may need to further discuss the specific details of this invention to determine whether patentable subject matter exists. Also, we have attached copies of the prior art taken into consideration in preparing this opinion.

Thank you for referring this matter to us.

Very truly yours,

WHM/KWF
Enclosures

William H. Mandir

US Appl. No. 10/608,534
Atty. Ref. Q73193

Patent Committee's Decision #985 - Message (HTML)

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From: Kvatinisky Hananel [IMCEAEX_O=BOSTECH_OU=ISMAIL_CN=RECIPIENTS_CN=HKVATIN@comverse.com]
To: Likwornik Zeev
Cc: Jacobbi Eli
Subject: Patent Committee's Decision #985
Sent: Mon 2/3/2003 5:41 AM

Shalom

The patent committee in its meetings on December 02 -January 03 considered your IDR "Add contacts through statistical search of the billing database" and decided to file a patent application following this IDR.

I will send you , within the next few days instructions how to prepare the material to the patent attorney.

Thank you for submitting this idea for consideration

Best Regards

Hananel

Hananel Kvatinisky

Intellectual Property Manager



US Appl. No. 10/608,534
Atty. Ref. Q73193

-----Original Message-----

From: Kvatinsky Hananel [SMTP:Hananel_Kvatinsky@lcomverse.com]
Sent: Monday, February 03, 2003 8:09 AM
To: Mandir, William H.
Subject: RE: Patentability opinion - 3 Address book related inventions - Request for an estimate

Shalom Bill

Thank you for the patentability opinion.

✂ We would like to pursue the invention "Add contacts through statistical search of the Billing database" COMVERSE ref 985 Sughrue ref Q73193

Please provide an estimate for the cost and time required to prepare a US patent application.

Also - please let me advise what additional information you require from the inventor in order to prepare a first draft (We have not asked him yet to fill our "full IDR" form. Your suggestions may assist him in doing so, if required).

Hananel

US Appl. No. 10/608,534
Atty. Ref. Q73193

> -----Original Message-----
> From: Fields, Kenneth W. [<mailto:kfields@sughrue.com>]
> Sent: Monday, March 31, 2003 11:57 PM
> To: Likwornik Zeev
> Cc: Kvatinsky Haimel; Mandir, William H.
> Subject: First draft of patent application- Converse 985/US - Sughrue Q731
> 93
>
> Zeev,
>
> Please find attached a first draft of the application and two
> corresponding
> figures. Please review the specification and figures to make sure the
> invention is accurately described. Feel free to edit and make comments
> where necessary. If there is anything you feel needs to be modified,
> added,
> or deleted, please let me know and we can revise accordingly.
>
> In addition, please review the claims to ensure that they reflect the
> inventive aspects. If there are any features which you feel should be
> added
> to or removed from the claims, please let me know.
>
> Thanks.
> Ken Fields
>
> Sughrue Mion, PLLC
> 2100 Pennsylvania Ave., N.W.
> Washington, D.C. 20037-3213
> (T) (202) 663-7905
> (F) (202) 293-7860
>
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>
> <<First Draft-Converse #985US - Sughrue Q73193.DOC>> <<Fig1 - Converse
> 985US - Sughrue Q73193.doc>> <<Fig2 - Converse 985US - Sughrue
> Q73193.doc>>
>
>

US Appl. No. 10/608,534
Atty. Ref. Q73193

> -----Original Message-----
> From: Likwornik Zeev [SMTP:Zeev.Likwornik@loomverse.com]
> Sent: Thursday, April 03, 2003 1:55 AM
> To: Fields, Kenneth W.
> Co: Kvatinsky Hananet Mandir, William H.
> Subject: RE: First draft of patent application- Comverse 985/US -
> Sughrue Q731 93
> Ken,
> Good work !!!
> Here are my comments:

Redacted

> Attached is first draft with my comments on - please fix accordingly and
> send me - please feel free to contact me any time.

Zeev Likwornik

Signaling and Media management

Corporate Marketing, Comverse LTD

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Website: <www.comverse.com> Time :GMT + 02:00

inspire.create.express

US Appl. No. 10/608,534
Atty. Ref. Q73193

-----Original Message-----

From: Fields, Kenneth W. [<<mailto:kfields@sughrue.com>>]

Sent: Monday, April 07, 2003 8:37 PM

To: Likwornik Zeev

Cc: Kvatinisky Hananel; Mandir, William H.

Subject: Revised draft of patent application- Comverse 985/US - Sughrue Q7 3193

Zeev,

Thanks for your suggestions and comments. Attached is a revised version of the application and figures based on your comments. Please review and let me know if you have any further comments.

Thanks,
Ken Fields

<<Revised Draft Comverse 985US - Sughrue Q73193- 04-07-03.DOC>> <<Fig1 - Revised 04-07-03.doc>> <<Fig2 - Revised 04-07-03.DOC>>

US Appl. No. 10/608,534
Atty. Ref. Q73193

-----Original Message-----

From: Likwornik Ze'ev
Sent: Sunday, June 08, 2003 1:37 PM
To: Fields, Kenneth W.
Cc: Kvatinsky Hananel; Mandir, William H.
Subject: RE: Revised draft of patent application- Comverse 985/US - Sughrue Q7 3193

Ken,

Looks like we have it.

I have no major comments.

Please read once again the documents and fix the typos (eg, in some places you changed the number of the entity but forgot to erase the old one...)

Ken, Hananel - please let me know what is the next step.

Thanks.

Ze'ev Likwornik

Director, Signaling and Media management

Corporate Marketing, Comverse LTD

Email: ze'ev.likwornik@comverse.com

Mobile: +972 54 469896 ; Office telefax: +972 3 766 9896

Website: www.comverse.com Time :GMT + 02:00

inspire.create.express

=== "The Future always comes too fast and in the wrong order" - AMin Toffler

US Appl. No. 10/608,534
Atty. Ref. Q73193

Fields, Kenneth W.

From: Fields, Kenneth W.
Sent: Monday, June 09, 2003 11:06 AM
To: 'Kvatinsky Hananel'
Cc: Mandir, William H.
Subject: RE: Revised draft of patent application- Converse 985/US - Sughrue Q7 3193

Hananel,

Attached is a finalized first draft of the application for your review.

Thanks,
Ken



Q73193: Finalized
First Draft...



Q73193: Fig.
1.DOC



Q73193: Fig.
2.DOC

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US Appl. No. 10/608,534
Atty. Ref. Q73193

Fields, Kenneth W.

From: Kvatsinsky Hananel [Hananel_Kvatsinsky@icomverse.com]
Sent: Wednesday, June 11, 2003 12:23 AM
To: Kenneth W. Fields (E-mail)
Cc: William H. Mandir Esq. (E-mail); Jakobsche George
Subject: RE: Comments on draft application Q73193 (Our ref. 985/US) "Telephone Based Method And System For Adding Contacts To A Personal Network Address Book"

Ken

Reviewing George's comments it seems to me that you should be able to deal with them without inventor's input.

Therefore - please revise the draft (please do not "reject" George's comments once dealt with but strike them out. This way it will be easier to followup changes).

Send the revised draft to me. I will take care of having the inventor review it (and hopefully approve).

Also - please send me the forms for inventor's signature. I will have him sign it once the application is ready to be filed.

Looking forward to receiving the revised (final?) draft.

Hananel

US Appl. No. 10/608,534
Atty. Ref. Q73193

-----Original Message-----

From: Fields, Kenneth W. [<mailto:kfields@sughrue.com>]

Sent: Thursday, June 19, 2003 5:23 AM

To: Kvatinsky Hananel; Likwomik Zeev

Cc: Mandir, William H.

Subject: Q73193: Finalized Draft (6/18/03)

Hananel and Zeev,

Please find attached a final draft (one clean version and one marked up version). I have one comment which is highlighted in the marked up version.

Thanks,
Ken

<<Q73193: Finalized Draft (clean version) (6/18/03).DOC>> <<Q73193:

Finalized Draft (marked up version) (6/18/03).DOC>>

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US Appl. No. 10/608,534
Atty. Ref. Q73193

Fields, Kenneth W.

From: Kvatinsky Hananel [Hananel_Kvatinsky@icomverse.com]
Sent: Sunday, June 29, 2003 5:03 AM
To: 'Fields, Kenneth W.'
Cc: Mandir, William H.; Likwomik Zeev; Jacobi Eli
Subject: RE: Q73193: Finalized Draft (6/18/03)

Importance: High



#985 - signed
forms.tif

Ken

The final draft is OK.

Attached please find a scan of the following documents duly signed by the inventor.

- Declaration and Power of Attorney
- Assignment

<<#985 - signed forms.tif>>

Please go ahead and file the application in the US PTO - before the end of June 2003.

Please confirm

Hananel Kvatinsky
Director of Intellectual Property

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E-mail: hananel.kvatinsky@comverse.com

US Appl. No. 10/608,534
Atty. Ref. Q73193

Q	Matter	Description	Doc Type	Author	Received	Edit Time	E...
	Q73193	Q73193OA.pdf	DOC	COPYCENTER	Wed 10/10/2007 11:4...	Wed 10/10/2007 11:45 AM	<input type="checkbox"/>
	Q73193	Q73193 no foreign filing	E-MAIL	WMANDIR	Wed 6/2/2004 9:36 PM	Tue 3/22/2005 11:39 AM	<input type="checkbox"/>
	Q73193	Q73193 No foreign filing	E-MAIL	WMANDIR	Mon 6/7/2004 6:12 AM	Tue 3/22/2005 11:35 AM	<input type="checkbox"/>
	Q73193	Q73193 Instructions not to foreign file	E-MAIL	WMANDIR	Mon 6/7/2004 9:28 AM	Tue 3/22/2005 11:32 AM	<input type="checkbox"/>
	Q73193	Q73193 publication letter	CLICORR	WMANDIR	Wed 1/26/2005 6:42 AM	Wed 1/26/2005 6:42 AM	<input type="checkbox"/>
	Q73193	Q73193 second foreign filing reminder	CLICORR	WMANDIR	Thu 4/8/2004 8:51 AM	Thu 4/8/2004 8:51 AM	<input type="checkbox"/>
	Q73193	Q73193 Recordation of Assignment RL	CLICORR	WMANDIR	Tue 2/3/2004 7:14 AM	Wed 2/11/2004 5:52 AM	<input type="checkbox"/>
	Q73193	Q73193 foreign filing reminder	CLICORR	WMANDIR	Wed 8/4/2004 4:59 AM	Wed 8/4/2004 4:59 AM	<input type="checkbox"/>
	Q73193	Q73193 foreign filing reminder	CLICORR	WMANDIR	Wed 1/7/2004 2:09 AM	Wed 1/7/2004 2:09 AM	<input type="checkbox"/>
	Q73193	Q73193 OFR RL	CLICORR	WMANDIR	Tue 11/4/2003 2:10 AM	Tue 11/4/2003 2:19 AM	<input type="checkbox"/>
	Q73193	PTO filing	PTOFIL	WMANDIR	Mon 6/30/2003 4:58 AM	Mon 6/30/2003 7:48 AM	<input type="checkbox"/>
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	Q73193	Q73193 Finalized Draft (clean version)	DRAFT	DEPARTED	Wed 6/18/2003 3:12 PM	Wed 9/17/2003 1:16 PM	<input type="checkbox"/>
	Q73193	Q73193: Assignment	CLICORR	DEPARTED	Thu 6/12/2003 7:47 AM	Thu 6/12/2003 7:47 AM	<input type="checkbox"/>
	Q73193	Q73193: Declaration	CLICORR	DEPARTED	Thu 6/12/2003 7:31 AM	Thu 6/12/2003 7:39 AM	<input type="checkbox"/>
	Q73193	Q73193 Finalized First Draft	DRAFT	DEPARTED	Mon 6/9/2003 2:37 AM	Mon 6/9/2003 2:58 AM	<input type="checkbox"/>
	Q73193	Q73193 Fig. 2	DRAFT	DEPARTED	Mon 6/9/2003 2:31 AM	Mon 6/30/2003 2:38 AM	<input type="checkbox"/>
	Q73193	Q73193 Fig. 1	DRAFT	DEPARTED	Mon 6/9/2003 2:31 AM	Mon 6/30/2003 2:38 AM	<input type="checkbox"/>
	Q73193	Q73193: Fig 2 (revised 4/4/03)	DRAFT	DEPARTED	Fri 4/4/2003 3:42 AM	Mon 4/7/2003 6:24 AM	<input type="checkbox"/>
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	Q73193	q73193: Letter reporting DN	CLICORR	DEPARTED	Wed 1/15/2003 4:39 AM	Thu 12/18/2003 12:09 PM	<input type="checkbox"/>
	Q73193	Patentability_Report	CLICORR	DEPARTED	Mon 1/6/2003 3:51 AM	Thu 8/7/2003 9:43 AM	<input type="checkbox"/>